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09/717,680	11/21/2000	Martyn S. Lovell	777.334US1	9114

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EXAMINER

KANG, INSUN

ART UNIT	PAPER NUMBER
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2193

MAIL DATE	DELIVERY MODE
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05/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/717,680

**Applicant(s)**

LOVELL ET AL.

**Examiner**

Insun Kang

**Art Unit**

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-9 and 12-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-9, and 12-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the amendment filed on 2/28/2007.
2. As per applicant's request, claims 1, 4, 7, 15, and 22 have been amended and claim 3 has been canceled. Claims 1, 2, 4-9, and 12-28 are pending in the application.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-9, and 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coad et al., U.S. Patent 6,851,107 (hereinafter referred to as Coad) in view of Weinberg et al. (US 5,974,572) hereafter Weinberg, further in view of Washburn et al. (U.S. Patent 5,157,779) hereinafter referred to as Washburn, further in view of Banning et al., U.S. Patent 5,485,567 (hereinafter referred to as Banning), and still further in view of Rivlin, U.S. Patent 6,032,159.

Per claim 1:

Coad discloses:

- a source code editor operable to edit a source code module (e.g., Figure 2, ref no. 208 and related text)
- a graphical design surface operable to display a graphical object representing actual source code of the source code module (e.g., Figure 13 and related text).

Although integrated testing is well known, Coad does not explicitly teach providing integrated testing of the source code module wherein the integrated testing includes load testing. Weinberg teaches such feature was known in the pertinent art, at the time applicant's invention was made, to test programs in the development environment. It would have been obvious for one having ordinary skill in the art to modify Coad's disclosed system to incorporate the teaching of Weinberg. The modification would be obvious because one having ordinary skill in the art would be motivated to test source code to find errors as suggested by Weinberg.

Coad and Weinberg do not explicitly teach that: a changer manager operative to manage versioning of the source code module; and an application datastore operative to store a previous version of the source code module. However, Washburn discloses a compare module and a review module, which manages two versions of a file by comparing the stored master data and the actual data (i.e. col. 12, lines 65-67; col. 16, lines 15-20; col. 17, lines 65-67; col. 2, lines 5 - 8; Figure 20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify visual programming environment in the disclosure of Coad combined with Weinberg, with the compare and review module as taught by Washburn because the compare and review modules provide the capability to update, change or delete portions of the module functionality in order to tailor the testing system to a particular computer system or computer software application (i.e. col. 14, lines 24-37; col. 2, lines 5 - 8; Figure 20).

Washburn further discloses that the previous master data is stored for comparison with an actual data to test the differences between them (i.e. col. 14, lines 24-37).

Coad further discloses: upon a change in the source code module, the change in the source code is immediately communicated to the graphical design surface and the

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graphical design surface is updated to reflect the change in the source code module, wherein the design surface displays the graphical object, (i.e. col. 2 lines 43-52)

Coad, Weinberg, and Washburn do not explicitly disclose the graphical object represents a database object. However, Banning discloses a graphical object representing a column of a database (Abstract; column 5, lines 19 – 62; Figure 2), but does not explicitly disclose binding a variable to a database column, however, Rivlin discloses binding a variable to a column in a database. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the editing and binding of objects in a graphical window as taught by Coad combined with Weinberg and Washburn with the graphical object representing a database column as taught by Banning and bound to variables as is well known and taught by Rivlin, because one would be motivated to clearly and concisely convey particular aspects of a database to a user and make changes via a window of information as taught by Banning in the Abstract.

In regard to claim 2, incorporating the rejection of claim 1:

Coad further discloses:

"...a change in the graphical design surface is immediately communicated to the source code editor.." (i.e. column 2, lines 43 – 52, modifying the object module results in an update to the source code).

In regard to claims 4 and 7, incorporating the rejection of claim 1:

Washburn further teaches:

- ..the difference between the source code module and the previous version of the source code module is highlighted... " (i.e. col. 12 lines 6-8, highlighting textual differences in a text editor, as in claim 4 and highlighting differences graphically in the graphics window, as in claim 7 in column 10, lines 52 - 59; e.g., Figure 7d).

In regard to claims 5 and 6, incorporating the rejection of claim 4.

Washburn does teach highlighting textual differences (column 12, lines 6 - 8), but does not specify the type of highlighting. However, it would have been obvious to use any different types of highlighting to give a quick visual difference based on a user preference.

In regard to claim 8, incorporating the rejection of claim 1:

Coad discloses: "...comprising at least one compiler... " in column 5, lines 11 - 14.

In regard to claim 9, incorporating the rejection of claim 1:

Coad discloses: "... the design surface is operative to bind the source code module to at least one compiler... " (i.e. a compile function that interacts with the graphical window in column 5, lines 11 - 14; It would be inherent that a software-programming environment would necessarily bind the code to the compiler in order to obtain executable code).

Per claim 15, it is the method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

In regard to claim 16, incorporating the rejection of claim 15:

Coad further discloses "... wherein the application type is a source code compiler. " a compiler in column 5, lines 11 - 14.

In regard to claim 17, incorporating the rejection of claim 15:

Banning further discloses a graphical object representing a column of a database (Abstract; column 5, lines 19 - 62; Figure 2).

In regard to claim 18, incorporating the rejection of claim 15:

"... wherein the application type is a source code interpreter. "

The Coad invention does not explicitly reference binding the object to an interpreter, but a compiler (column 5, lines 11 - 14). Therefore, it would have been obvious to one skilled in the art that an interpreter could have been specified to "compile" the code line-by-line in order to execute the code.

In regard to claim 19, incorporating the rejection of claim 15:

Coad further discloses:

- modifying the source code; and refreshing the design surface to update the graphical object to reflect the modification to the source code (i.e. Source code editing is reflected in the graphical window, see column 2, lines 43 -52).

In regard to claim 20, incorporating the rejection of claim 15:

Coad further discloses:

- modifying the graphical object on the design surface; and refreshing the source code to reflect the modification to the graphical object (i.e. the object module and the modification results are modified in an update to the source code, see column 2, lines 43 - 52).

In regard to claim 21, incorporating the rejection of claim 15:

Washburn further discloses:

"...reading a template having a pre-configured software module from a datastore (i.e. col. 12, lines 65-67; col. 16, lines 15-20; col. 17, lines 65-67; col. 2 lines 3-5; fig. 20) which stores the master file (the previous version) of the file.

Per claims 22-28, they are the computer-readable medium versions of claims 15-21, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 15-21 above.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coad et al., U.S. Patent 6,851,107 (hereinafter referred to as Coad) in view of Weinberg et al. (US 5,974,572) hereafter Weinberg, further in view of Washburn et al. (U.S. Patent 5,157,779) hereinafter referred to as Washburn, further in view of Banning et al., U.S. Patent 5,485,567 (hereinafter



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referred to as Banning), still further in view of Rivlin, U.S. Patent 6,032,159, and still further in view of Peddada et al., US patent 6,031,159 hereinafter referred to as Peddada.

Per claim 12:

Coad, Weinberg, Washburn, Banning, and Rivlin do not teach that the binding is established through a drag-and-drop interface. However, Peddada teaches it was a well known technique of a drag-and-drop interface, used in this application to bind a graphics object to a program (column 12, lines 28 - 44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement the visual programming environment of Coad combined with Weinber, Washbur, Banning, and Rivlin into display graphical objects from a database, modified by Peddada to provide a drag-and-drop feature to accomplish the added functions enabled by the above combinations, because the drag-and-drop feature further simplifies the programming function for users with little or no programming experience as suggested at column 12, lines 40 - 44 of Paddada.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coad et al., U.S. Patent 6,851,107 (hereinafter referred to as Coad) in view of Weinberg et al. (US 5,974,572) hereafter Weinberg, further in view of Washburn et al. (U.S. Patent 5,157,779) hereinafter referred to as Washburn, further in view of Banning et al., U.S. Patent 5,485,567 (hereinafter referred to as Banning), still further in view of Rivlin, U.S. Patent 6,032,159, and still further in view of Gupta et al., US patent 6,484,156 (hereinafter referred to as Gupta).

Per claim 13:

Coad combined with Weinber, Washbur, Banning, and Rivlin does not disclose: a package manager...are grouped together as a package. However, Gupta discloses highlighting a set or sets of annotations (modules) for execution (column 14, lines 59 - 67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to enhance the visual programming environment taught by Coad in combination with Weinber, Washburn, Banning and Rivlin, with the feature of highlighting a set of modules to be downloaded as taught by Gupta because the combination allows the user to select and run a set of modules via the graphics window without needing any detailed programming knowledge and offering convenient means of pre-selecting sets as taught at column 15, lines 1 - 54.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coad et al., U.S. Patent 6,851,107 (hereinafter referred to as Coad) in view of Weinberg et al. (US 5,974,572) hereafter Weinberg, further in view of Washburn et al. (U.S. Patent 5,157,779) hereinafter referred to as Washburn, further in view of Banning et al., U.S. Patent 5,485,567 (hereinafter referred to as Banning), still further in view of Rivlin, U.S. Patent 6,032,159, and still further in view of Gupta et al., US patent 6,484,156 (hereinafter referred to as Gupta), and still further in view of O'Donnell et al., US patent 6,223,203 (hereinafter referred to as O'Donnell).

Per claim 14:

Coad combined with Weinber, Washbur, Banning, Rivlin, and Gupta does not explicitly teach: the package manager is further operative to receive a list of system identifiers...to deploy the package to. However, O'Donnell discloses a means to receive a list of system identifiers of a particular computer system (column 3, lines 1 - 20). Therefore, it would have been obvious to

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one skilled in the art at the time the invention was made to enhance the visual programming environment taught by Coad combined with Weinber, Washbur, Banning, Rivlin, with the feature of highlighting a set of modules to be downloaded as taught by Gupta, and further modified with a received list of list of possible computer systems to select a particular system for module deployment as taught by O'Donnell, because this added feature obviously provides the user a means to select a particular computer system to receive the software module set disclosed by the Gupta invention giving the user more detailed control over the system configuration as taught by O'Donnell (i.e. col. 3 lines 1-20).

### ***Response to Arguments***

8. Applicant's arguments filed on 2/28/2007 have been fully considered but they are not persuasive.

The Applicant states that: Washburn does not disclose managing versioning data of the source code module, and storing a previous version of the source code module (pages 8-9).

In response, Washburn discloses updating the master data with the actual data by the review module. When the updating option is selected, the version of the previous master data stored in the master data file (i.e. col. 12, lines 65-67; col. 16, lines 15-20; col. 17, lines 65-67) is updated with the actual data (i.e. col. 14, lines 24-37). The previous master data is stored for comparison with an actual data to test the differences between them.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-R 6:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG AI AN can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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